



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

GENERAL NOTICE LETTER
URGENT LEGAL MATTER
PROMPT REPLY NECESSARY
CERTIFIED MAIL: RETURN RECEIPT REQUESTED

NOV 17 2016

Robert D. Graham
Vice President and General Counsel
NL Industries, Inc.
Three Lincoln Centre
5430 LBJ Freeway, Suite 1700
Dallas, Texas 75240-2697

Re: General Notice Letter for the U.S. Smelter and Lead Refinery, Inc. Site in East
Chicago, Indiana
Site Spill Identification Number: 053J

Dear Mr. Graham:

Under the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA"), commonly known as the federal "Superfund" law, the U.S. Environmental Protection Agency ("EPA") is responsible for responding to the release or threat of release of hazardous substances, pollutants or contaminants into the environment – that is, for stopping further contamination from occurring and for cleaning up or otherwise addressing any contamination that has already occurred. The EPA has documented that such a release has occurred at the U.S. Smelter and Lead Refinery, Inc. Site ("the Site") located in East Chicago, Indiana. The EPA has spent and anticipates spending additional public funds to investigate and control releases of hazardous substances or potential releases of hazardous substances at or from the Site.

Explanation of Potential Liability

Under CERCLA, specifically Sections 106(a) and 107(a), potentially responsible parties ("PRPs") may be required to perform cleanup actions to protect the public health, welfare, or the environment. PRPs may also be responsible for costs incurred by EPA in cleaning up the Site, unless the PRP can show divisibility or any of the other statutory defenses. PRPs include current and former owners and operators of a Site, as well as persons who arranged for treatment and/or disposal of any hazardous substances found at the site, and persons who accepted hazardous substances for transport and selected the site to which the hazardous substances were delivered.

Based on the information collected, EPA believes that NL Industries, Inc. may be liable under Section 107(a) of CERCLA with respect to the Site, as a person who arranged for disposal, treatment, or transportation of lead or arsenic at or to the Site.

To date, EPA, the State of Indiana and other potentially responsible parties have taken several response actions at the Site under the authority of the Superfund Program. Below is a brief description of the actions taken at the Site.

- Removal Actions including the excavation and off-site disposal of contaminated soils to reduce any immediate threats to the environment or human health posed by the Site.
- A Remedial Investigation (RI) to identify the Site characteristics and to define the nature and extent of soil contamination at the Site and the risks posed by the Site.
- A Feasibility Study (FS) to evaluate different cleanup options for the Site.
- Issuance of a Record of Decision (ROD) dated November 30, 2012, with respect to Operable Unit 1 (OU1) of the Site.
- Negotiation and execution of a Consent Decree dated October 28, 2014, which provides for the performance of the work described in the ROD within Zone 1 and Zone 3 of OU1.
- Performance of the work described in the ROD throughout OU1.
- Interior lead and arsenic sampling and cleanup of residences within the West Calumet Housing Complex (Zone 1).

De Minimis Settlements

Under CERCLA § 122(g) of CERCLA, whenever practicable and in the public interest, EPA may offer special settlements to parties whose waste contribution to a site is minimal in volume and toxicity, that is, *de minimis* parties.

Individuals or businesses resolving their Superfund liability as *de minimis* parties are not typically required to perform site cleanup. Instead, EPA requires *de minimis* settlers to pay their fair share of cleanup costs incurred, plus a “premium” that accounts for, among other things, uncertainties associated with the costs of work to be performed in the future. In return, *de minimis* settlers receive: (1) a covenant not to sue, which is a promise that EPA will not bring any future legal action against the settling party for the specific matters addressed in the settlement; and (2) contribution protection, which provides a settling party with protection from being sued by other responsible parties for the specific matters addressed in the settlement.

Participation in a *de minimis* settlement means that you are settling directly with EPA as soon as it is possible to do so.

If you believe that NL Industries, Inc. may be eligible for a *de minimis* settlement at this Site, please contact Associate Regional Counsel, Steven Kaiser, at (312) 353-3804 or kaiser.steven@epa.gov for additional information on "*De Minimis* Settlements."

Financial Concerns/Ability to Pay Settlements

The EPA is aware that the financial ability of some PRPs to contribute toward the payment of response costs at a site may be substantially limited. If you believe, and can document, that you fall within that category, please contact Associate Regional Counsel, Steven Kaiser, at (312) 353-3804 or kaiser.steven@epa.gov for information on "Ability to Pay Settlements." In response, you will receive a package of information about the potential for such settlements and a form to fill out with information about your finances, and you will be asked to submit financial records including business federal income tax returns. If EPA concludes that NL Industries, Inc. has a legitimate inability to pay the full amount of EPA's costs, EPA may offer a schedule for payment over time or a reduction in the total amount demanded from you.

Also, please note that, because EPA has a potential claim against you, you must include EPA as a creditor if you file for bankruptcy.

Information to Assist You

The EPA would like to encourage communication between you, other PRPs, and EPA at the Site. The EPA recommends that all PRPs meet to select a "steering committee" that will be responsible for representing the group's interests. Establishing a manageable group is critical to successful negotiations with EPA. If this is not possible, EPA encourages each PRP to select one person from its company or organization to represent its interests to EPA. Also, there is a website you may visit to learn more about the Site. For extensive information about the Site including ongoing sampling and cleanup work, access: <https://www.epa.gov/uss-lead-superfund-site>.

To assist you in your efforts to communicate, please find the following attached information:

1. Site Description and History
2. Potentially Responsible Parties General Notice List
3. Fact Sheet

The EPA has established an Administrative Record that contains documents that serve as the basis for EPA's selection of a cleanup action for the Site. The Administrative Record is

located at <https://semspub.epa.gov/src/collection/05/AR62604> and is available to you and the public for inspection. The Administrative Record also is located at two other locations for inspection: the East Chicago Public Library, 2401 E. Columbus Drive, East Chicago, Indiana, and the Superfund Records Center, EPA Region 5, 77 West Jackson Boulevard, Chicago, Illinois 60604.

By no later than December 7, 2016, please call or email Associate Regional Counsel, Steven Kaiser, at (312) 353-3804 or kaiser.steven@epa.gov, with a contact attorney for this matter.

Thank you for your prompt attention.

Sincerely,



for

Joan Tanaka, Chief
Remedial Response Branch #1

Enclosures

cc: Steven Kaiser, Associate Regional Counsel
Lisa McCoy, Indiana Department of Environmental Management
Annette Lang, Department of Justice

bcc:

Thomas Alcamo, Remedial Project Manager (SR-6J)
Timothy Drexler, Remedial Project Manager (S-R-6J)
Mike Rafati, Enforcement Specialist (SE-5J)
Carolyn Bohlen, Enforcement Service Section Chief (SE-5J)
Todd Quesada, Superfund Records Center (SM-7J)
Leo Chingcuanco, ORC (C-14J)
Mary Fulghum, ORC (C-14J)

Enclosure 1**Site Description and History**

The U.S. Smelter and Lead Refinery, Inc. Superfund Site (the Site) is located within the city of East Chicago in Lake County, Indiana. The EPA has divided the Site into two Operable Units, Operable Unit 1 (OU1) and Operable Unit 2 (OU2). OU2 consists of the former U.S. Smelter and Lead Refinery, Inc. (USS Lead) facility while OU1 is comprised of a residential neighborhood located north and east of the USS Lead facility.

OU1 consists of the surface and subsurface soil (but not the groundwater) within the following geographic boundaries: on the north East Chicago Avenue; on the east Parrish Avenue; the south East 151st Street/149th Place; and on the west the Indiana Harbor Canal. OU1 is a residential area known as the Calumet neighborhood, which includes a low-income housing project, single-family residences, multi-family residences, an elementary school, numerous public parks and various small commercial structures.

OU2 consists of the former USS Lead facility located at 5300 Kennedy Avenue. This 79-acre parcel contained a lead refinery and smelting complex that operated principally as a primary lead smelter and lead refinery from approximately 1906 to 1973, but also had secondary smelting operations during a significant part of that time. In 1973, the facility started operating exclusively as a secondary lead smelter. All smelting operations at the USS Lead facility ceased in 1985. OU2 is bounded to the east by Kennedy Avenue, to the north by the Indiana Harbor Belt Railroad, to the northwest by the Indiana Harbor Canal, and to the south and west by the Grand Calumet River. USS Lead is the current owner of OU2 and has owned OU2 since February 4, 1920. OU2 also includes the groundwater beneath OU1.

USS Lead owned and operated a lead refinery and smelter at the Site from 1920 until 1973 that, among other metals, annually processed between approximately 30,000 and 40,000 tons of lead product and released to the environment associated lead and arsenic production wastes. Between 1973 and 1985, USS Lead exclusively operated a secondary lead smelter at the Site that recovered lead from various materials including the following: lead batteries, plates, and elements; miscellaneous lead scrap; reverberatory slag; dross; gel cell trimmings; sump waste / sludge; scrap battery lead; remelted material; oxide; baghouse dust and floor sweepings; past; hazardous waste; and unknown or unidentified material. Prior to 1920, the USS Lead facility was owned by the United States Metals Refining Company.

USS Lead generated two primary waste materials as a result of the smelting operations: (1) blast-furnace slag and (2) lead-containing dust emitted from the stack of the blast-furnace. These waste materials contained hazardous substances including lead and arsenic. Blast furnace slag was stockpiled south of the plant building and spread annually over an adjoining 21 acre wetland. The blast-furnace baghouse collected approximately 300 tons of baghouse flue dust per month during maximum operating conditions. Some of the baghouse dust was reintroduced into the furnace for additional lead recovery. By the late 1970s approximately 8,000 tons of

baghouse dust were stored outside at the facility. Air emissions that contained lead and arsenic were released into the atmosphere through one or more stacks and, along with emissions from other sources, contaminated OU1 and OU2.

On April 8, 2009, U.S. EPA placed the entire Site (both OU1 and OU2) on the National Priorities List (NPL) by publication in the Federal Register, 74 Fed. Reg. 16,126-34. On November 30, 2012, EPA issued a Record of Decision (ROD), which sets forth the remedial action to be implemented at OU1. The remedial action includes excavation and off-site disposal of soil with lead concentrations exceeding 400 milligrams per kilogram (mg/kg) and arsenic concentrations exceeding 26 mg/kg, to a maximum depth of two feet. At industrial or commercial properties, EPA will clean up lead that exceeds 800 mg/kg.

On October 28, 2014, the United States and the State of Indiana reached an agreement with the Atlantic Richfield Company and E.I. DuPont de Nemours and Co., (DuPont) for the cleanup of parts of OU1. The agreement is embodied in a federal consent decree entered by the United States District Court, Northern District of Indiana (2:14-cv-312). Under the consent decree, EPA will conduct the cleanup work in the neighborhood using funding provided by the two companies. The EPA will identify the yards that need to be remediated, work with property owners to develop property-specific drawings showing which soils on the property must be excavated, conduct the excavation work, and restore the properties after excavation is completed. Atlantic Richfield and DuPont will pay for EPA's work and also will transport the contaminated soil out of the neighborhood for proper disposal.

To manage the cleanup, EPA and the State of Indiana divided OU1 into three zones. The October 2014 consent decree covers Zone 1 and Zone 3. Cleanup of Zone 2 and the reimbursement of past costs incurred by EPA in connection with OU1 will be the subject of the next round of negotiations with all PRPs.

Enclosure 2**Potentially Responsible Parties General Notice List**

Atlantic Richfield Company
Michael H. Elam
Barnes & Thornburg LLP
One North Wacker Drive
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Chicago, Illinois 60606
(312) 214-5630

Atlantic Richfield Company
C/O British Petroleum
Douglas S. Reinhart
150 W. Warrenville Road
Mail Code 200-1W
Naperville, Illinois 60563
(331) 702-4069

The Chemours Company
Bernard J. Reilly
Chemours Legal D-7054
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Wilmington, Delaware 19899
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(302) 773-0061

The Chemours Company
David L. Rieser
K&L Gates LLP
70 W. Madison Street, Suite 3100
Chicago, Illinois 60602
(312) 807-4359

E I. du Pont de Nemours and Company
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Corporate Counsel
1007 Market Street
Wilmington, Delaware 19898

Mueller Industries, Inc.
Gary Wilkerson
Vice President, General Counsel and Secretary
8285 Tournament Drive, Suite 150
Memphis, Tennessee 38125
(901) 753-3200

USS Lead Refinery, Inc.
Norman Johnson, Vice President
4780 Caterpillar Road
Redding, CA, 96003

Arava Natural Resource Company, Inc.
Registered Agent: The Corporation Trust Company
Corporation Trust Center
1209 Orange Street
Wilmington, DE 19801

Mining Remedial Recovery Company
Registered Agent: The Corporation Trust Company
Corporation Trust Center
1209 Orange Street
Wilmington, DE 19801

Cyprus Amax Minerals Company
Mr. Philip C. Wolf
Senior Vice President, General Counsel and Secretary
9100 East Mineral Circle
Englewood, Colorado 80112

United States Metals Refining Company
Mr. David L. Wallis
Gallagher & Kennedy
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Phoenix, Arizona 85016-9225

Johnson Controls, Inc.
Judy Reinsdorf
Executive Vice President and General Counsel
5757 N. Green Bay Ave.
Milwaukee, WI 53209

Honeywell International, Inc.
Katherine L. Adams
Senior Vice President and General Counsel
115 Tabor Road
Morris Plains, NJ 07950

C & D Technologies, Inc.
Mr. David Anderson
Vice President and General Counsel, and Corporate Secretary
1400 Blue Bell, Pennsylvania 19422-0858

NL Industries, Inc.
Mr. Robert D. Graham
Vice President and General Counsel
Three Lincoln Centre
5430 LBJ Freeway, Suite 1700
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11
Enclosure 3

Fact Sheet



Contact Information

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Tom Alcamo
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Administrador del proyecto de
restauración
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You may call EPA toll-free at 800-
621-8431, 8:30 a.m. - 4:30 p.m.,
weekdays.

Puede llamar a la EPA sin costo al
800-621-8431, 8:30 a.m. - 4:30 p.m.,
entre semana.

Access agreements

EPA may contact you and ask you
to sign a document called an access
agreement. The access agreement
allows EPA to come onto your
property to collect soil samples and
clean your property.

Acuerdo de Acceso

La EPA podría comunicarse con
usted para pedirle que firme un
documento llamado acuerdo de
acceso. El acuerdo de acceso permite
que la EPA vaya a su propiedad para
tomar muestras de tierra y limpiar su
propiedad.

EPA To Begin Cleaning Up Lead-Contaminated Yards

U.S. Smelter and Lead Refinery Superfund Site
East Chicago, Indiana

September 2010

U.S. Environmental Protection Agency will soon begin cleaning up
contaminated soil in parts of East Chicago's Calumet neighborhood with no
cost to the homeowner.

Zone 3

EPA and the state of Indiana have reached an agreement with Atlantic
Richfield Co. and E.I. Du Pont De Nemours and Co. for the two companies
to fund the cleanup project.

Soil in the Calumet neighborhood, which is part of the USS Lead Superfund
site, contains high levels of lead and arsenic. EPA will clean up Zone 3 under
this agreement starting this month (see map, Page 2).

Zone 3 contains 468 properties and officials received access to sample 411.
EPA is notifying property owners about the sampling results. If your property
meets the criteria for cleanup, EPA will contact you to discuss the next steps.
If you have not received your sampling results, please contact Tim Drexler or
Tom Alcamo (see box to left).

EPA will prioritize properties for cleanup based on lead and arsenic levels
found in the samples. Before work begins, EPA officials will meet with
each property owner to discuss details of the cleanup on their property. In
general, workers will dig up and remove contaminated soil about 2-foot
deep and replace it with clean soil, including 6 inches of topsoil. Then they
will put sod on the clean soil, restoring each yard to the condition it was in
before work began - all at no cost to the homeowner. ARC and DuPont will
transport the contaminated soil to a licensed landfill for proper disposal.

Zone 2

Preliminary results from soil testing in Zone 2 of the USS Lead Superfund
site show lead and arsenic levels at some properties that warrant further
action. While the results are still being finalized, EPA is preparing to begin
cleanups this fall. Based on the early results, at least 20 properties out of the
136 sampled will be targeted for cleanup this construction season, weather
permitting.

This summer, EPA began testing properties in Zone 2 to develop an
engineering plan for the cleanup of the entire site. Starting at the south edge
of the zone - closest to the former USS Lead factory - to date EPA has
sampled soil from 136 properties out of 590. EPA will finish sampling this
year and will deal with properties needing cleanup in the spring.

EPA will notify residents as soon as final, validated sampling results become
available for their properties and then outline the next steps. EPA will post
the data on its website after removing personally identifiable information,
including street addresses.

Site location and history

The USS Lead site comprises two areas called "openable units." Openable Unit 1, or OU1, is a 322-acre residential area bounded by East Chicago Avenue on the north, East 151st Street on the south, the Indiana Harbor Canal on the west and Parrish Avenue on the east. OU2 is the former USS Lead facility on 151st Street. EPA often divides sites into OUs based on how the land was used; in this case residential versus industrial use. OU1 was then divided into three zones. Zone 1 is the West Calumet Housing Project; EPA is currently cleaning homes in Zone 1.

On Nov. 30, 2012, EPA issued its final cleanup plan for OUI, the residential area. The plan includes removal and off-site disposal of soil with lead concentrations exceeding 400 milligrams per kilogram, or mg/kg, and arsenic concentrations exceeding 26 mg/kg.



Map showing OIL, the residential area of the site. An agreement has been reached on cleanup work in Zones 1 and 3. Work in Zone 2 will be done under a separate agreement.

El mapa muestra OCU, el área residencial del sitio. Se ha llegado a un acuerdo para las obras de limpieza en las Zonas 1 y 3. El trabajo en la Zona 2 se hará bajo un acuerdo por separado.

EPA empieza a limpiar patios contaminados por plomo

Sitio de Superfund U.S. Smelter and Lead Refinery
East Chicago, Indiana

Septiembre de 2016

La Agencia de Protección Ambiental de los EE. UU. (EPA, por sus siglas en inglés) comenzará próximamente a limpiar la tierra contaminada en partes del barrio Calumet de East Chicago.

Zona 3

En 2014, la EPA y el estado de Indiana llegaron a un acuerdo con Albemarle-Richfield Co. y K.I. Du Pont De Nemours and Co., mediante el cual las dos compañías financiarán el proyecto de limpieza.

La tierra en el barrio Calumet, el cual es parte del sitio Superfund llamado USS Lead, contiene niveles elevados de plomo y arsénico. La parte residencial del sitio fue dividida en tres zonas. La EPA limpiará la Zona 3 bajo este acuerdo. (Vea el mapa en la página 2.)

La Zona 3 contiene 468 propiedades. La EPA recibió consentimiento de acceso para tomar muestras en 411 de esas propiedades. La EPA ha comenzado a notificar a los dueños de las propiedades los resultados de las muestras tomadas en sus propiedades. Si su propiedad cumple con los criterios para la limpieza, la EPA se pondrá en contacto con usted para hablar de los siguientes pasos. Si usted aún no ha recibido sus resultados de las muestras, por favor comuníquese con Tim Drexler o Tom Alcamo. (Vea el recuadro en la página 1.)

La EPA dará prioridad de limpieza a las propiedades basándose en los niveles de plomo y arsénico encontrados en las muestras tomadas. Antes de empezar las obras, oficiales de la EPA se reunirán con cada dueño de propiedad para hablar sobre los detalles de la limpieza en su propiedad. En general, los trabajadores van a excavar y eliminar la tierra contaminada hasta alrededor de 2 pies de profundidad, y la reemplazarán con tierra limpiada, incluyendo 6 pulgadas con tierra de cultivo. Luego pondrán césped sobre la tierra limpia, restaurando cada patio a la condición en la que estaba antes de que el trabajo comenzara -- todo a la costa alguna para el dueño. Las compañías ARC y DuPont transportarán la tierra contaminada a un vertedero aprobado para su disposición adecuada.

Zona 2

Los resultados preliminares del análisis de muestras de tierra en la zona 2 muestran que los niveles de plomo y arsénico en algunas propiedades requieren la toma de acciones adicionales. Mientras los resultados están siendo finalizados, la EPA se está preparando para incluir con las limpiezas este otoño. Habiéndose en los primeros resultados, hay por lo menos 20 propiedades de las 136 analizadas que serán elegidas para ser limpiadas esta temporada de construcción, si el clima lo permite.

Este verano, la EPA comenzó a analizar muestras de propiedades en la zona 2 para crear un plan de limpieza que guiará la limpieza en todo el sitio. Comenzando con el borde sur de la zona -- lo más cercano a la antigua fábrica de USS Lead -- hasta la fecha la EPA ha tomado muestras de 136 propiedades del total de 590. La EPA terminará la toma de muestras este año, y eventualmente tomando acciones en las propiedades que requieran limpieza en la primavera.

La EPA les notificará a los residentes los resultados tan pronto se finalicen y validen para sus propiedades, e los indicará los siguientes pasos. La información también será publicada en el sitio web de la EPA, pero se eliminarán datos personales tales como la dirección de la propiedad.

Ubicación e historia del sitio

El sitio USS Lead está compuesto de dos áreas llamadas unidades operables o "OU's". La Unidad Operable 1, también conocida como OU1, es un área residencial de 322 acres limitada por East Chicago Avenue al norte, East 151st Street al sur, el Canal de Indiana Harbor al oeste, y Parrish Avenue al este. OU2 tiene las antiguas instalaciones de USS Lead en 151st Street. La EPA por lo general divide los sitios en OUs de acuerdo a cómo se usaba el terreno; en este caso hay uso residencial e industrial.

El 30 de noviembre de 2012, la EPA emitió su plan final de limpieza para OU1, que es el área residencial. El plan incluye la eliminación y disposición fuera del sitio de la tierra con concentraciones de plomo superiores a 400 miligramos por kilogramo, o mg/kg, y concentraciones de arsénico superiores a 26 mg/kg.

USS LEAD SITE: EPA to Begin Cleaning Up Yards La EPA Comenzará a Limpiar Patios

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EPA
United States
Environmental Protection
Agency
Region 5
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